The view from here

Overview of 2008–09 from the Vice-Chancellor

This year we have seen many successes: 88 per cent of our academic staff ranked as world class or of international standing, important funding bids won for Knowledge Transfer Accounts, Doctoral Training Centres and the Economic Challenge Investment Fund, a marked improvement in the National Student Survey, and a continued pre-eminence in graduate employment.

The calibre of our education remains of paramount importance to us. In a move towards a focus on quality rather than quantity, we are concentrating on those programmes in which we excel. As a consequence, competition for our undergraduate and postgraduate places is rising sharply. Applications are up by 62 per cent compared to three years ago and our average entrance tariff has risen 18 per cent since 2005. We have exceeded all targets for student recruitment and the quality of our students is improving significantly, with an average entry level of 391 UCAS tariff points. The University has grown as a consequence of its success and we are proud to have 14,441 students studying at our Guildford campus, with a further 906 students at our Surrey International Institute in China.

Our capital expenditure programme has accelerated this year with some major improvements to the campus and its facilities. Building work on the Surrey Sports Park and the new Guildford School of Acting (GSA) building are near completion and we look forward to welcoming the GSA students onto campus in the New Year. Work has also started on the £16 million Learning Resource Centre which will feature new library, study and teaching facilities, a supermarket, chemist, dry cleaners and a book/coffee shop.

This year we have made real strides in our pursuit to be a truly global institution. Our vision is that in time a Surrey student could study each year of their degree programme in a different country around the world.

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These are both challenging and exciting times for the University. I believe Surrey has many strengths and advantages which have been won by the hard work of all our staff. In today’s world where innovation, quality and adaptability are key attributes, Surrey is particularly well placed to succeed. This will ensure that Surrey survives the competitive pressures we face and makes excellent progress toward our strategic goals laid out in our ten-year strategy.
A snapshot of memorable moments from the year at Surrey.

SEPTEMBER

THE BIG BANG
Surrey’s well-known academic and TV personality Professor Jim Al-Khalili featured in a BBC Horizon documentary that told the story behind the big bang hypothesis of how the universe was created. Delving into more than 50 years of BBC archives, he charted the overwhelming evidence for what is now one of the greatest theories of modern science. ‘Lost Horizons: The Big Bang’ coincided with scientists switching on the Large Hadron Collider in Geneva, Switzerland.

ROLL UP, ROLL UP... FOR SCIENCE
On 20 September, the University’s second annual Surrey Science Circus drew in 3,000 visitors from across the region. People of all ages took part in themed spectacles like ‘The Science of Doctor Who’ and a ‘Bubble and Feel the Force’ show presented by London’s Science Museum. Other features included hands-on experiments for children and opportunities to view cells under microscopes.

LEADING ON SUSTAINABILITY
Sharing strategies, tips and contacts were the order of the day at a University conference on sustainability (4 September). Statistics suggest that higher education environments consume 5.2 billion kWh of energy every year, creating a carbon footprint of 3.3MT of CO2 and an energy bill of over £200m. ‘Sustainable Practices in Universities’ brought together experts from across the globe to advise on reducing these impacts.

OCTOBER

TALKING ARTIFICIAL INTELLIGENCE
Will your computer ever think for itself, and is developing artificial intelligence definitely a good step for mankind? These and other fascinating questions were aired at a public presentation and debate hosted by the School of Management. Panellists included Professor Noel Sharkey, a specialist in artificial intelligence and robotics, Dr Paul Newman, Head of the University of Oxford’s Mobile Robotics Group, Dr. Anders Sandberg, a futurist and transhumanist from the University of Oxford, and Quentin Cooper, a broadcaster and presenter of ‘Material World’ on BBC Radio 4.

FEBRUARY

NATIONAL SCIENCE AND ENGINEERING WEEK
The Education Liaison Centre hosted a range of workshops and lectures for young people and adults during National Science and Engineering Week. Designed to celebrate science and engineering — and the importance of each to our daily lives — sessions tackled topics such as modern forensics for older audiences, and robotics and biochemistry for younger participants. During the week, the University also launched a national student programming contest, designed to find talented game programmers of the future.

JANUARY

SPIN-OFF IN SPACE
Europe’s leading space company EADS Astrium announced that they had bought Surrey Satellite Technology Limited from Surrey, making it the largest ever cash sale of a university spin-off. The University retained a small stake in the company, which specialises in the design and manufacture of small satellites and subsystems, and continues to support EADS Astrium with staff training and development. The sale enhances the already strong presence that Guildford and the South East of England have in the aeronautical and space industries, creating a centre for expertise in these fields. (See page 13.)

TOP OF THE PACK AT THE ACES
Surrey’s Professor Adel Sharif was a winner at the inaugural pan-European Academic Enterprise Awards (ACES) 2008. The honour recognised the professor and his team at the University’s Centre of Osmosis Research and Applications (CORA) for their achievements in developing water purification and desalination technologies. These technologies seek to provide clean drinking water in regions of the world with low natural resources. The innovations have been the inspiration for spin-off company Surrey Aquatechnology, which is now owned by Modern Water Plc.

THE SURREY STAG
HRH The Duke of Kent unveiled an impressive 5m-high steel realisation of the University’s logo at the main entrance to the campus. Created by sculpture artist Allan Sly, the stag references the medieval royal park on which the main campus is built, and the key is a relic of the former crest of Battersea Polytechnic and an item borrowed from the county’s coat of arms.

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PROSPERITY WITHOUT GROWTH?
A major report published by the government’s sustainable development adviser argues that pursuing economic growth was one of the root causes of the international financial crisis of 2008–09. The Sustainable Development Commission’s report, which was authored by the University’s Professor Tim Jackson, states that this recession period should be the occasion to forge a new economic system that seeks to avoid the pitfalls of boom and bust, allows a fairer distribution of benefits across the world, and pays greater attention to the growing environmental crisis.

ROYAL ECONOMIC SOCIETY CONFERENCE
A selection of the world’s leading economists arrived at the University to take part in the Royal Economic Society’s annual conference. The event was hosted by the Department of Economics and opened by Professor David Laibson of Harvard University, whose address focused on the financial crisis of 2008. Topics included trade and economic growth, competition policy and property rights, house price volatility, climate change, and an evaluation of ten years of the national minimum wage. The Department will host the annual conference again in March 2010.

SAUDI INTERNATIONAL CONFERENCE
Surrey hosted the third prestigious Saudi International Conference. The two-day conference presented a variety of papers, workshops and panel discussions across a range of disciplines, including humanities, applied sciences, biomedical and health sciences, engineering and information and communication technologies. It is sponsored by King Abdulaziz University and backed by the Saudi Students’ Clubs and Schools in the UK and Ireland.

A QUESTION OF SPORT
Ex-England cricketer and long-term Surrey County fixture Alec Stewart was at the Surrey Sports Park to speak to members of the press about the importance of world-class sports facilities in the UK. Under construction at a cost of £35m, the University’s state-of-the-art park had already been selected as the official training venue for the Paralympic Games in 2012. Strong links have been built with Team GB, and many other sporting partnerships were already well under way by the end of the year.

CONCORDE VIRTUALLY BACK IN THE AIR
A University of Surrey team completed a project to re-commission one of the most sophisticated aircraft simulators ever created. The simulator, which was used to train Concorde aircrew, started its service in 1975 as one of only two of its kind in the world. Now based at the Brooklands Museum, Weybridge, visitors can enjoy a pilot’s eye view of a Concorde flight, including a take-off procedure from New York and the thrill of breaking the sound barrier.

A REAL HIGH FLIER
Dr Andreas Mogensen, a postdoctoral researcher at the University, was announced as one of the European Space Agency’s next intake of astronauts. Based at the Surrey Space Centre, Dr Mogensen focused on precision guidance, navigation and control for pinpoint landing on lunar and Mars missions. He became one of just six successful applicants from an initial list of over 8,000, and he is now expected to be part of missions to the International Space Station, the moon and beyond.

FEED THE WORLD
From 29 June to 2 July, the University played host to the annual summer symposium of the Nutrition Society, a group that focuses on advancing the scientific study of nutrition and its application to human and animal health. With over 400 nutritionists taking part, the society is the largest learned group in Europe to tackle such issues. Topics for 2009 included over-nutrition and under-nutrition in developed countries, as well as the prevention and treatment of obesity.

CHINA CELEBRATES FIRST GRADUATES
The Surrey International Institute (SII) – based in Dalain, China – announced its first successful graduates. Seven students graduated with an MSc in International Business Management, with one securing an immediate management position. SII allows local students to take Surrey programmes without having to travel to the UK. Nineteen students have embarked on the new Master of Science programme.
**Internationalisation**

**Leading in International competitiveness**

The University of Surrey is leading the way in developing models for multinational collaboration in higher education and currently works with partners in over 50 countries. Our commitment to international growth is founded upon a history of success in forging partnerships with organisations across the world that make a tangible difference, academically and commercially. Similarly, the transformation of Surrey into an international institution has been conceived with the end result in mind: ensuring that we use our talent for making connections that amount to more than the sum of the parts.

**The Global Partnership Network**

Surrey made considerable progress this year in creating a Global Partnership Network (GPN), a new approach to partnerships focusing upon deep engagement with a small number of institutions around the world. The universities involved are selected against a number of criteria including their areas of research excellence, research synergies with Surrey and with other institutions within the GPN, their international ranking and a commitment to internationalisation. The GPN now includes the University of São Paulo in Brazil, North Carolina State University in the US, Nanjing University in China and Seoul National University in South Korea.

Some support for the GPN has been provided through the Santander Universities Network which has provided some £500m in funding to more than 700 universities in Spain, Portugal, Latin America, China, the US and the UK since it was set up in 1996. The agreement means that global banking giant Banco Santander provides financial backing for Surrey students, researchers and entrepreneurs for a range of activities including international exchange programmes, business enterprise, scholarships and language training.

**Exploring a world of opportunity**

Surrey also has long-standing bilateral accords which its Faculties and Departments sign individually with corresponding institutions in other countries. These include relationships with Kyushu IT, Caltech, JPL, HK Space and NUFE.

One recent example of this is a formal agreement to share knowledge between Surrey Research Park and the Tardok Science Town in Daejon, South Korea. This cements more than 20 years of collaboration between Surrey, Daejon and other member cities of the World Technopolis Association.

**Strategic Partnerships**

The Strategic Partnerships initiative concentrates primarily on teaching-focused alliances.

The Surrey International Institute (SII) in China is an academic partnership between Surrey and Dongbei University of Finance and Economics (DUFRE), offering study programmes to students in China who have the option to pursue part of their studies in the UK. This year seven students became the first graduates of SII with an MSc in International Business Management.

Surrey leads a consortium of UK universities, the South East-India Partnership Network (SE-IPNet), in developing with the Indian government new universities with high-quality research and undergraduate teaching, and the Indian Institute of Science Education and Research (IISER) Pune, a newly established autonomous research institute.

“The GPN we are building embodies a marked shift to in-depth, research-led collaboration across an integrated network of universities with a commitment to tangible research outcomes”

Pro-Vice Chancellor (International Relations) Professor Colin Grant
Student achievements

We are proud of Surrey’s record in helping 97% of Surrey’s students to find employment when they leave us; part of the secret is helping them to make the very best of the time they spend with us. Here are just a few of the many successes our students have achieved this year.

Success where it counts…

Dance prodigies tap into some welcome funding

The University prides itself on its cultural appreciation, and its reputation for excellence in dance continues to build. That's what Dance and Culture first-year students Hitesh Teckahandani and Edmund Spencer found in May when their fancy footwork earned them £500 each, courtesy of the Department of Dance, Film and Theatre Studies. The annual Men in Dance Scholarships are awarded to candidates who show excellence in both the practical and theoretical aspects of the art.

Built environment winner

MEng Civil Engineering student Elizabeth Waters was the regional winner of the Association of Women in Property (WiP) National Student Awards 2009. Forty universities put forward their rising stars to this third successive year of the WiP competition, making a total of 60 of the most talented second-year Built Environment students from across the country. Elizabeth then went on to go head-to-head with the winners from eight other regions across the UK, in the national final held at Claridge's in London.

You’ve come a long way…

Travel and Tourism student Kitsada Tungchawal took a hands-on approach to learning when he travelled all the way to Thailand for his PhD. Kitsada spent four months living in two remote villages in the South-east Asian country's rugged north to study how indigenous peoples view tourism and devise better ways of getting them involved. This globe-trotting effort earned him a prize for the best PhD presentation, which was awarded at a ceremony at the Houses of Parliament attended by tourism minister Margaret Hodge.

Exploding with talent

Not many people get to handle high explosives on their placements, but that’s pretty much what Civil Engineering student Tom O’Neill did while he worked for BAE Land Systems. Tom worked on team projects developing munitions that are safer to handle in the field of conflict and should help to save the lives of British soldiers in Afghanistan. He also helped to make specialised armour that protects light vehicles against mines and roadside bombs.

A stellar effort

In July, the Institute of Physics bestowed the Very Early Career Woman Award on Physics graduate Victoria Hodges for her outstanding contribution to the European Space Agency project, Gaia. The prize recognises women who fly high in physics-related jobs, and Vicki has helped the Gaia spacecraft to do this by designing its altitude control machinery. This high-tech installation will be indispensable to Gaia, which is due to be launched on a mission to map our galaxy’s billion stars in 2012. The device allows a satellite to be steered remotely from Earth to within less than one degree of variation, while factoring in the time it takes for the signal to transmit between the two points.

At a cultural peak

Chemistry students Laura Sayers and Jennifer Handsel were among 100 students to be chosen from universities across Europe for the prestigious Roche Continents project, which aims to promote culture in unusual settings. They spent a week at the Salzburg Festival in August 2009 going to concerts, attending talks and taking part in workshops designed to explore the creative common ground shared by the arts and sciences.
Keeping the ball in play

Surrey's commitment to sport received another boost thanks to Dylan Marques, who worked with Mott MacDonald to help preserve England’s test cricket heritage. Dylan helped to design a drainage system that will allow Edgbaston Cricket Ground to extend its capacity and remain a test venue, as part of an upgrade that is due to finish before India tour the UK in 2011.

Find your space

The University is very proud of everyone who worked on the ground station at Surrey Space Centre. Built by our students, it was used in July as a test site to demonstrate the capabilities of the European Space Agency’s GENSO software system, which is designed to allow ground control stations to communicate better with spacecraft and share information with astronauts via the Internet. This technology is expected to increase the effectiveness of future space missions, and radio teams from across the planet have been helping to design and build it.

Dynamic drummer beats a path to scholarship

Who says you can’t write tunes on the drums? Surrey music student Jonathan Fairey proved himself the equal of any composer in October last year, when he won the prestigious annual Pennington’s Music Scholarship after blowing away a panel of judges with a percussive masterpiece of his own. Final-year student Jonathan had to beat off competition to clinch the coveted £1,000 prize, during a contest that took in concert-level performances of the highest calibre and a centuries-spanning range of influences from 17th-century composer Purcell to modern-day singer Amy Winehouse.

Largest ever cash spin-out from a University

The University of Surrey made history in January 2009 when it announced the largest ever cash sale of a university spin-out with its disposal of Surrey Satellite Technology Ltd (SSTL). The SSTL story began in the mid-1970s when talented Surrey researchers began to explore alternative ways of building satellites, culminating in the highly successful launch, in 1981, of UoSAT-1 with NASA. In 1985, the University formed SSTL to commercially exploit the research. Since then SSTL has become the world’s leading small satellite company, delivering operational space missions for a range of applications including Earth observation, science and communications.

“SSTL is one of the great success stories of the UK space industry and will be a substantial complement to what we can offer customers,” said Colin Paynter, CEO of EADS Astrium in the UK.

Surrey is the number one UK university for space

Surrey is now working closely with EADS Astrium in a multi-million pound long-term research partnership; a collaboration that will further advance the University’s cutting-edge space research capacity. The partnership is also working to create a new ‘Space Engineering Innovation Hub’ in conjunction with Surrey Satellite Technology Ltd (SSTL). The new venture combines academic research and commercial exploitation to develop technologies that change the ‘economics of space’ by providing rapid-response, low-cost, highly capable space missions.

Linked to this is the creation of a prestigious new Research Chair in Space Engineering at the Surrey Space Centre which will be jointly sponsored by the Royal Academy of Engineering and SSTL.

Professor Sir Martin Sweeting, Director of the Surrey Space Centre, commented: “The Royal Academy’s support for this important development of Surrey’s academic research in space engineering is greatly appreciated and, together with the industrial support from SSTL, will enable Surrey to be even more innovative in changing the economics of space.”

SSTL has built and launched 34 small satellites carrying Earth observation, navigation, communications and space science payloads. Several more are currently under development. Meanwhile, the Surrey Space Centre continues to push the boundaries of small satellite technology with ground-breaking work developing new techniques for interplanetary space exploration. As a step on the way, the Surrey Space Centre and SSTL are currently working on an exciting UK-led small satellite mission to the moon in 2012.

The UK Space Minister, Lord Drayson, commented: “Surrey is a shining example of innovation in the UK space sector, leading the world in pioneering new and more affordable approaches to space and its applications.”
88% of Surrey’s research was rated ‘world-class’ or ‘internationally recognised’ in the 2008 RAE. Here we take a closer look at a few of our highly successful research projects and the impact they have on the wider world.

Gender and the risk of obesity
A Surrey research team is investigating how fats are handled by the bodies of obese men and women aged 50 to 70 years, in the hope that the study will open up research areas that help scientists to develop effective treatments for obesity.

By using whole-body Magnetic Resonance Imaging (MRI) scans they will be able to measure where fat is stored, as well as investigate how much triglyceride fat is produced by the liver and removed from the circulation. The research will also explore how much fat is being burned up for energy.

Co-leader of the study, Professor Margaret Umpleby, commented: “A clearer understanding of the gender differences in fat metabolism in older obese men and postmenopausal women subjects who are at increased risk of heart disease is urgently needed so treatment can be targeted effectively.”

New study on type-2 diabetes
A Surrey research team led by Dr. Jonathan Johnston and Ms Daniella Otway is investigating the effects of type-2 diabetes and insulin resistance on the daily biological rhythms in fat tissue and blood.

The human body clock regulates most bodily functions, including hormone secretion and the metabolism of sugar and fat. Past studies have revealed that many biological processes associated with fat tissue have daily rhythms, including the production of ‘fat hormones’ that control blood glucose levels. Fat tissue rhythms are blunted in animals with type-2 diabetes, suggesting that reduced rhythmicity may be an important factor for this condition.

The new study, which has been funded by Diabetes UK, will test whether people with type-2 diabetes exhibit attenuated rhythms in fat tissue and in blood. Support of this hypothesis would open an exciting new avenue in research.

Boost for breast cancer research
A multi-centre programme involving radiologists, physicists and engineers from the Royal Surrey County Hospital and the University of Surrey has been awarded one of five grants to conduct research into breast cancer imaging called OPTIMAM.

Cancer Research UK and the Engineering and Physical Sciences Research Council (EPSRC) are investing £45 million in a nationwide initiative to develop and introduce the latest imaging technology to the UK. Cancer Research UK will invest up to £30m and the EPSRC £15m in a joint initiative that will establish the UK as a world leader in cancer imaging research.

With support of up to £2.5m, the University of Surrey and Royal Surrey County Hospital programme aims to improve detection, diagnosis and treatment. Though breast cancer mortality has declined substantially over the last 20 years – due to a combination of early detection (mainly through mammography screening) and improved treatments – detection by mammography still suffers limitations.

Leading the programme are Professor Ken Young, Head of the National Coordinating Centre for the Physics of Mammography and Visiting Professor in Medical Physics at the University, and Professor Andy Nisbet, Head of Medical Physics at the Royal Surrey County Hospital and Professor of Medical Physics at the University.

15% increase in research funding

Research
University of Surrey

Research

Engineering tomorrow’s world

The University of Surrey was proud to receive funding this year for the creation of two doctoral-level training centres worth £12m. Funded by the Engineering and Physical Sciences Research Council (EPSRC), they are two of seventeen planned UK industrial training facilities that seek to equip research engineers with the expertise and business skills to transform pioneering ideas into products and business. The centres will take a multidisciplinary approach to training PhD students, bringing together diverse areas of expertise to address clear areas of national need – such as energy, climate change, high-tech crime and the UK’s ageing population. They will also create new working cultures and research communities, and forge relationships between University teams and with industry.

Surrey’s Industrial Doctorate Centre in Sustainability for Engineering and Energy Systems will focus on delivering progress in the sustainable delivery of goods and services. The centres will provide an innovative and transformative research environment for materials science and engineering, building on the University’s already strong reputation for research and expertise in the field. The centres will provide an innovative and transformative research environment for materials science and engineering, building on the University’s already strong reputation for research and expertise in the field.

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Things just got smaller

An international team of researchers, led by Dr Hidetsugu Shiozawa of Surrey’s Advanced Technology Institute, has been able to see individual chemical events occurring at atomic scale, as molecules react inside the confines of a nano test tube.

When chemistry is performed in regular-sized test tubes, what occurs is the result of billions of molecules reacting with each other and anything else that is present. Using the new tubes, which measure an unimaginable billionth of a metre across, scientists are actually able to watch chemical reactions between individual molecules.

“The excitement of this chemistry is the strong electronic interaction observed at the elemental level when compounds are confined within carbon nanotubes,” said Dr Shiozawa.

“The quantized electronic states of the tube allow specific molecules and compounds to interact, so we can tell the difference between molecules. We see a change in the properties of the tube from insulating to conducting when electrons hop from the molecule to the tube. This is a fundamental breakthrough.”

The research is published in Physical Review Letters and sponsored by a Portfolio Partnership Award, set up by the Engineering and Physical Sciences Research Council.

Hybrid photovoltaics

German energy giant EON has awarded a major grant to the University’s Advanced Technology Institute as part of its Application of Nanotechnology in the Energy Business’ programme.

The grant will support a three-year project to utilise the institute’s nanotechnological expertise in designing, fabricating and characterising organic-inorganic hybrid solar cells. Over 90 per cent of solar cell modules are currently silicon based, but the emergence of organic material-based solar cell technologies promises lower-cost energy.

Led by Professor Ravi Silva, the Advanced Technology Institute team aims to improve these technologies and move them closer to commercialisation. The University already holds patents that cover the development of hybrid systems for practical applications including solar cells and solid-state lighting. With the new project, Professor Silva believes these materials can be effectively used to solve one of the burning issues of the day: that of energy usage.
In March, Surrey secured a £3.85m Knowledge Transfer Account from the Engineering and Physical Sciences Research Council. The government agency, which funds research and training in engineering and the physical sciences, has released £55m to help universities exploit their research – specifically, to turn innovation into commercial and social opportunities that benefit the UK.

Surrey’s bid was developed collaboratively by the Faculty of Engineering and Physical Sciences, the Research and Enterprise Department and the National Physical Laboratory. The team pinpointed three distinct innovation platforms: communications and signal processing, next-generation materials and characterisation, and nanotechnology and photonics. It seeks to accelerate the development of new technologies across these platforms, while driving increased engagement with industrial users.

Using pollen to fight crime

New DNA tagging developed by University scientists could significantly increase the number of successful convictions in the fight against gun crime.

Tags are created by coating gun cartridges with a mixture of naturally occurring pollen grains and nanotechnology particles. ‘Nanotags’ capture DNA because they transfer easily to the user’s hands and clothing and are difficult to wash off. Their surface is also better suited to retaining skin cells and it can withstand the temperatures created when a firearm is used.

The technology was developed by a conglomerate of UK universities – Brighton, Cranfield, York and Brunel – that was led by the University of Surrey. The results are significant because current forensic testing is limited and often unreliable.

The work was funded by the Engineering and Physical Sciences Research Council.

Trustworthy electronic voting

The University’s Department of Computing received a £1.08m grant in September to pursue research into developing trustworthy electronic voting systems.

Many countries in recent years have invested significant sums in electronic voting. However, current systems have come under criticism because there is no way for voters to verify that their vote was correctly included in the count. The research team will work with the Ministry of Justice and US opinion formers to develop a publicly verifiable voting system that can be used in large-scale elections.

The grant was approved by the Engineering and Physical Sciences Research Council. It is part of a wider £1.5m research project with the University of Birmingham, and in collaboration with the University of Luxembourg. The project finishes in 2013.

Seminars

HR healthcheck

A seminar hosted by the Surrey Technology Centre in January encouraged local businesses to be clearer about their human resources practices.

University of Surrey human resource company, Circle HR, had recently launched a new ‘health check’ to help firms assess their in-house policies and procedures. During interactive sessions, the professionals took delegates through a selection of case studies designed to help them avoid future mistakes and protect them against liability.

Seminars

New technology tasters

An event in May gave businesses the opportunity to find out more about how young people engage with web technologies, and how ‘new’ media can be used to market to these audiences.

There was a discussion on the benefits of networking with students and other businesses. Students also demonstrated technologies such as Facebook, Youtube, Photoshop and podcasting.
Business and innovation

Innovation through a tough economy

In spring 2009, the University was successful in its £600,000 bid to the Higher Education Funding Council for England’s new Economic Challenge Investment Fund – a £50m pot that was set up to help vulnerable businesses and individuals through the recession.

Since then, the Leadership Academy for Innovation, Leadership and Recovery has been working with organisations at risk – in particular, small and medium-sized enterprises (SMEs) that need new ways to innovate in order to survive. On an individual level, it is supporting employees who are at risk of redundancy by analysing and refocusing their skills. And, for those already out of work, the team’s focus is on the personal skills and motivation to find new employment.

The academy’s scheme incorporates coaching, mentoring and action learning workshops, and it is being delivered in close liaison with the South East England Development Agency and other key support agencies.

“We can’t make the recession go away,” said Director, David Gray, “but we are confident that practical help and advice can fundamentally shift strategy and recovery opportunities for businesses and individuals.”

The right remedy for biopharmaceuticals

A collaborative effort between the University of Surrey and the University of Reading has secured around £1.4m to address the skills and knowledge needs of the pharmaceutical industry in the South East.

The project was awarded almost £670,000 from the Economic Challenge Investment Fund in April 2009, with contributions from the two universities and the South East England Development Agency making up the remainder of the £1.4m.

The universities have used the funding to create targeted opportunities for employees, graduates and the recently unemployed – particularly in areas that the industry identifies as high priority.

A distinctive feature of the bid was the concept of recruiting industry members who were at risk of redundancy, or were newly redundant. As ‘industrial fellows’, these people would concentrate on immediate specialist training needs, mentoring graduate interns and supporting targeted skills development in science students. Importantly, they take on much of the mentoring and supervisory work that prevents some small and medium-sized enterprises (SMEs) benefiting from graduate intern assistance.

Therapy for the retail sector

The Economic and Social Research Council (ESRC) has awarded a five-year budget of £1.45m to the University’s Faculty of Management and Law as part of a project to strengthen research partnerships between Surrey and the retail sector.

The Universities of Leeds, Oxford, Southampton and Surrey make up a new Retail Industry Business Engagement Cluster, one of four ESRC clusters created to develop highly skilled researchers who collaborate on projects and engage directly with the business sector. The £6m ESRC initiative responds to government reviews such as Sainsbury, Leitch and the Innovation Nation White Paper, which highlighted the need to build expertise that contributes to business innovation.

The new cluster will promote innovation and enhance competitiveness through knowledge transfer partnership arrangements and business voucher schemes. Small and medium sized retail firms can apply for a £3,000 voucher that funds university research linked to tailored innovation needs.

Developing science parks in Bangladesh

Dr Malcolm Parry, Director of the Surrey Research Park, was part of a specialist team invited to Bangladesh in September to speak about how the UK is using science parks to create new technology-based companies and commercialise university technology.

With over a thousand science parks now operating worldwide, the role these parks play in supporting technology and other knowledge-based businesses has led to an amplified interest in them around the world.

The science movement in Bangladesh is facing many challenges, according to respected science commentator Professor Nitish Chandra Deb Nath, Vice-Chancellor of the Chittagong School of Veterinary and Animal Sciences University. Top of the list, he believes, is the need for industry to create relevant science and technology-based employment opportunities for graduates – talented individuals who might otherwise leave the country.

During their visit to Dhaka, the Science Park Movement team worked with senior members of Bangladesh’s higher education sector and other science centres of excellence to formulate a workable plan for establishing parks across the country.

Free satellite imaging

In December, Surrey Research Park resident DMCii announced it would provide free disaster monitoring constellation satellite imagery for ten global environmental monitoring projects – five based in the UK and five in Spain.

Satellite imaging is a powerful tool for monitoring land use. Together, the DMC constellation of five satellites can image large areas of the Earth, offering a valuable ‘eye in space’ for recording global environmental change. Among its past ventures, the constellation has monitored deforestation in the Amazon Basin and its data has contributed to the European Commission’s landmark Global Monitoring for Environmental Security project.

For this initiative, scientists were invited to submit requests to use DMCii satellite imagery in their research projects.

Student employment rate

97%
Culture and Sport

Surrey is developing and broadening its curriculum and expanding its involvement in sport and cultural activities and the results of huge investment and bold change are already clear.

School of acting raises the roof

Stage and screen favourites Brenda Blethyn OBE and Helena Blackman laid the final tile on the roof of the new £7.4m Guildford School of Acting building in July 2009. The Guildford School of Acting (GSA) merged with the University in August 2008.

“This new and exciting phase in GSA’s history is a dream come true,” said its Director, Peter Barlow. “We can now bring the whole school together and provide the very best facilities for our internationally renowned teachers.” Based on the Stag Hill campus, the three-storey, purpose-built facility has 15 dance studios, tutorial rooms, a cafe and an impressive entrance atrium. Importantly, it allows the GSA to host all of its future programmes under one roof, having previously been split across multiple locations in Guildford. It also creates extra performance space for the existing Dance, Film and Theatre Department – not to mention the raft of activities organised by the Arts Office.

Built by Dutch-owned contractor VolkerFitzpatrick, the new school building was part funded by a £3m grant from the Higher Education Funding Council for England.

Guildford International Music Festival

Run from 6 to 28 March 2009, this was the tenth festival, which has been biennial since its inception in 1991, consisting of 65 events, two art exhibitions, an artist-in-residence and a parallel programme of events, Suburban Sprawl, with events in pubs in and around the town. The audience ranged from 18 months to 94 years old, so there was certainly something for everyone! Despite the recession the festival had record ticket sales, and across all events, audiences were in excess of 10,000.

One performance which literally made the audience gasp out loud was ‘Angels on High,’ when the ‘angel’ (Surrey lecturer and choreographer, Kate Lawrence) descended from the very top of Guildford Cathedral and performed vertical dance on the side of the tower, with music especially composed by Surrey lecturer Tim Brookes.

The festival is a partnership with Guildford Borough Council and one of the reasons that it has become such a valued part of the regional arts scene is due to the relationships built with other arts organisations and venues in Guildford – from National Trust properties to local cafes.

Full English spread

The popularity of Surrey’s first English programme led us to open a dedicated English department in August 2008. The degree offers the opportunity to combine English with creative writing, international communication, French or Spanish, with an optional year in industry.

The new department will now offer programmes in English Language, English Literature with Creative Writing and two Masters degrees in Communication and International Marketing and Intercultural Communication with International Business.

Incorporating the University’s Morphology Research Group, it works closely with the new Centre for Excellence in Professional Training and Education to ensure that its programmes focus on preparing students for real-world employment. So far the initiative to establish a new English department has proved effective and in a short time has seen a considerable measure of success.

Enclosures, blue fences and the Great North Road

Acclaimed poet and novelist Iain Sinclair gave this year’s Morag Morris Poetry Lecture on Thursday 9 October. The subject of this free lecture, marking National Poetry Day, was John Clare.

Iain Sinclair pursued his ongoing obsession with the poet, retracing Clare’s long walk away from madness, engaging with a ghost whose once forgotten voice has become a strange and vital presence in contemporary culture.

This was the first Morag Morris Poetry lecture to take place after Morag retired from the direct organisation of the event. While we regret that Morag is no longer able to coordinate the event, the Department of English and the University Arts Office will ensure that the lecture series continue to attract speakers of the highest calibre.
Pooling resources

Guildford City Swimming Club has become a key partner to the world-class pool facilities at Surrey Sports Park, with the club’s high-performance squads based at the park from its opening in 2010.

Under the partnership agreement, the two organisations will work closely to maximise the opportunities offered by the Olympic-standard pool. Club staff will coach the University of Surrey Swim Squad and will also offer tuition and training for swimmers of all levels.

Flagship facility

“The new pool will be our flagship facility,” commented Surrey Sports Park Chief Executive, Jason Harborow. “As well as helping our elite swimmers, the partnership will open up new opportunities for swimmers of all ages and abilities. Thanks to the accessibility of the Sports Park, disabled swimmers will also be able to enjoy the benefits.”

Gold for Surrey Squash

In March, UniSPORT’s Varsity Squash Centre was awarded the Gold Charter by England Squash & Racketball, the national governing body for the two sports. Assessing clubs around the country, the body identifies those that provide the best development opportunities for players, coaches, officials and volunteers, with recognised clubs typically excelling in development on a local, regional and national level.

The University’s Sport and Recreation Department is the only gold-chartered club in Surrey and the third of its kind in the South East.

The secret of a powerful swing

Surrey’s Professor Robin Sharp might have cracked the code to a puzzle that has mystified golfers for years: namely, how to develop a powerful swing. According to his research – published in the Royal Society’s journal, *Proceedings A* – the wrists are not critical to the perfect long-distance play, as previously thought.

The key to achieving distance is, in fact, how and when the power develops, with maximum club head speed at impact being delivered by control of the arms. The study also found that the size of golfer did not create dramatic differences in performance. Strength and inertial variations are actually more likely to account for long and short hitting.

Professor Sharp’s analysis is based on a computer model that shows three points of rotation in a golf swing: the shoulders relative to the spine, the arms relative to the shoulders, and the wrists relative to the arms. The styles of sporting greats, Bernard Hunt, Geoffrey Hunt and Guy Wolstenholme, were analysed. The model showed that their drive distance could have been improved by increasing the torque quickly to the maximum value, then maintaining it through the rest of the swing.

Culture and Sport

Surrey sculpture

In a partnership between the University Arts Office and Surrey Sculpture Society, the University played host to three sculpture lectures in October, November and February. The October lecture was presented by Rob Olins FRBS. Rob works primarily on large-scale structures and installations, and his work can be seen throughout the UK and overseas.

Distinguished freelance curator and sculpture consultant Ann Elliott presented our second lecture in November. Ann advises on sculpture commissions and is a well-known author and lecturer in the field. Currently a member of several high-profile arts boards, she was the first Curator for Sculpture at the Goodwood estate in West Sussex and Exhibitions Officer with the British Council. Her lecture illustrated various aspects of her role exploring interactions with artists, galleries, collectors and the authorities involved in public arts projects.

In February the lecture was presented by Founding Director of the Yorkshire Sculpture Park, Peter Murray OBE. Peter Murray’s talk explored how, over the last 30 years, the Yorkshire Sculpture Park has been gradually opened up to the public and has emerged as an international centre for contemporary sculpture in the landscape.

Henry Moore’s Reclining Figure Arch Leg at Yorkshire Sculpture Park. Courtesy of Henry Moore's Trust.

For the second year running the University entered into a formal association with local music festival, GuilFest 2009. The association showcased exciting developments within both our academic and leisure activities.

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**Culture and Sport**

Campus studios and Guildford theatres played host to a glittering array of programmed arts events during 2008–09.

**Arts from A to Z**

A broad range of interests was covered in the calendar: from the great (Guildford International Music Festival) to the small (Aim Green, a workshop for making instruments out of recycled materials); the energetic (Bedlam Dance Company’s new show) to the relaxed (lunchtime and rush hour concerts); the unplanned (Free improvisation performances) to the directed (Martin Scorcese’s ‘No Direction Home’ and ‘Shine a Light’ screenings).

**Not-so-mini maestros**

World-renowned musicians, Nikolai Demidenko and Tasmin Little gave truly stirring performances at Surrey’s PATS Music Studio during autumn 2008. Visiting professor and pianist, Nikolai Demidenko’s 2008 concert appearances included performances with the Philharmonia Orchestra, the Hallé Orchestra, Sinfinia Lati, and tours with the Prague Symphony Orchestra and the Orchestra, Sinfonia Lahti, and tours with the Philharmonia Orchestra, the Hallé Orchestra, Sinfinia Lati, and tours with the Prague Symphony Orchestra and the Orchestra National Bordeaux Aquitaine.

Violinist Tasmin Little has become an international star as violinist and conductor, performing in many of the world’s best orchestras. She took to the University stage with pianist Piers Lane. Both artists starred as soloists in BBC2’s ‘Maestro’ series, where eight personalities competed for a chance to conduct an orchestra at the 2008 BBC Proms in the Park.

**Mali music at Surrey**

BBC World Music Award winner Bassekou Kouyate launched his 2009 UK tour with a spellbinding performance at the University’s Great Hall on 26 March. As a citizen of Mali, Kouyate is one of Africa’s most remarkable musicians. His tunes infuse melody with infectious rhythms, described by The Guardian as ‘both ancient and utterly contemporary... like some African answer to Hendrix’. The Great Hall performance, with his band Ngor, was part of the tenth Guildford International Music Festival. He performed material from his debut album, ‘Segue Blue’, which has received widespread critical acclaim, including a place in the Observer Music Monthly’s Best 50 Albums of 2007. The band has been a guest on radio and television, including BBC2’s ‘Later with Jools Holland.’

**Parallels: unparalleled**

In October 2008, Surrey welcomed back performer and choreographer Sonia Sabri to stage her new show, ‘Parallels.’ Sonia is acclaimed as one of the brightest and most versatile British-born dancer-choreographers of the moment. Her new ‘solo’ show features a mixed bill of contemporary and classical dance showcases, accompanied by a team of musicians that includes internationally renowned tabla player Ustad Sarvar Sabri.

**Bedlam rides again**

The Bedlam Dance Company returned to the touring circuit in February with a brand new show previewed at the University. For ‘Doing, Done and Undone,’ the six-strong international dance group explores a specially commissioned electro-acoustic score that weaves Hebrew and Arabic voices with string instrumentation.

**Improving the learning experience**

The University uses 76 million KWH, enough water to fill 160 Olympic swimming pools, although until recently only had a few energy meters on site. Over the past year Surrey has installed metering into every building to measure consumption on gas, electricity, heat and water. The information from these meters will help identify high users and leaks from the system and enable us all to drive forward a campaign for carbon reduction.

**First for Starbucks**

In June 2009, Surrey Sports Park announced a licensing agreement with Starbucks Coffee Company UK, which means it is the first multi-sports facility in Europe to house the international coffee-house chain.

“Relaxation and opportunities to socialise will be key components of the complex... and the Starbucks name will significantly enhance this offering,” said Surrey Sports Park Chief Executive, Jason Harborow.

The coffee house will have a 120-seat indoor café area and outdoor seating for an additional 130 people. It is anticipated that the store will create around 20 local jobs.

**Refenestration and remodelling**

A major renovation and refurbishment project was undertaken across many of Surrey’s residential blocks. Several received improvements such as new roofing and windows, kitchens, carpets and complete redecoration. The AD block was the last of the 1960s academic blocks to receive replacement double-glazed window systems and energy efficiency improvements. The work marks the end of a ten-year programme that has replaced over 14,000m2 of windows, most of the core ventilation and a large proportion of the electrical distribution plant. This is expected to net carbon savings of over 2,000 tonnes.

**Big boost for independent study**

An exciting new Learning Resource Centre development at the east end of the University Library will increase independent study space on campus by 30 per cent. Rushes restaurant was demolished in July and work began on the new centre, that will radically extend the library facilities and will benefit from an informal learning café zone, improved access routes, a new languages centre and retail facilities. The development will also improve the disabled access into the library.

The developing campus

Over the past ten years Surrey has invested millions in developing a world-class campus worthy of its international status, in order to continue to provide a great student experience.
People

We welcomed a great many talented new staff this year and also said farewell to a number of friends and highly-valued colleagues. We were proud to celebrate the successes of staff and honorary graduates.

Arrivals

**LORD WINSTON JOINS COUNCIL**

The University’s governing council was proud to welcome a distinguished academic and award-winning TV presenter to its ranks. Professor of Science and Society Lord Winston, best known for pioneering gynaecological microsurgery in the 1970s and presenting the BAFTA-winning BBC show ‘The Human Body’, will use his knowledge and experience to help Surrey attain its goals and fulfil its strategic vision. Lord Winston has written some 300 journals on reproduction and embryology, and through TV series such as ‘The Secret Life of Twins’ and ‘Superhuman’ has used his interest in the media to bring science to a wider audience.

**HEART HEALTH EXPERT JOINS SURREY**

Professor Tom Quinn, a leading professor of cardiac nursing, joined Surrey’s Faculty of Health and Medical Sciences this year. Professor Quinn has worked for the NHS for more than 30 years and recently helped to develop government policy on tackling heart disease in the UK. The Royal College of Nursing conferred its highest honour on Professor Quinn in 2006, when he was made a Fellow for his outstanding contribution to his chosen field of study.

**PENELLOPE KEITH BECOMES PRO-CHANCELLOR**

Distinguished actor Penelope Keith, became Surrey’s new Pro-Chancellor at the University Court’s 50th anniversary meeting. The ‘Good Life’ star, whose work in the theatre and on television has won numerous awards, brings her international profile and strong arts community links to the role, along with her outstanding record of service to the community of Surrey and existing ties with the University. Ms Keith has served as High Sheriff and Deputy Lieutenant of the county during the past decade and with the University. She is also Patron of the University’s Annual Fund, which raises money from alumni for student projects.

**STAR PLAYER FOR SURREY SPORTS PARK**

Jason Harborow joined the University as Chief Executive of the £36m Surrey Sports Park. Jason’s role is to maximise its potential as a world-class sporting venue and he has already made a strong start in securing partnerships and sponsorship deals for the new park, which is due to open in 2010 and will provide world-class facilities for students, professional athletes and the local community. Jason’s previous roles have seen him involved at a senior level in the Rugby League World Cup and 2002 Commonwealth Games.

Departures

**SURREY’S SPORTING LEGEND**

After nearly 30 years, Director of Sport Barry Hitchcock left the University to take up new challenges. Much loved as a dedicated sportsman and colleague, it was Barry’s enthusiasm and determination that inspired the new Surrey Sports Park which is being heralded as amongst the finest sporting centres the country has seen. The University is delighted to be preserving its connection with Barry through a new consultancy role.

**FAREWELL SALLY**

The University would also like to pay tribute to the sustained contribution made by Sally Edie, Head of Sports Development. Sally stepped down this year having worked tirelessly to serve sport and to raise the University of Surrey’s profile the world over. She will be greatly missed by students, staff and the local community.

**JOHN TURNER STEPS DOWN**

After six years, History and Politics Professor John Turner retired as the University of Surrey’s Senior Deputy Vice-Chancellor. John, whom one colleague described as ‘the closest thing to a genius I have ever met’, was the architect behind Surrey’s ten-year strategy, designed to face the challenges of the modern era and forge a merger with the prestigious Guildford School of Acting. John spent some of his 32 years in higher education at Oxford, Yale and Cambridge before taking up his post at Surrey in 2003. The University is indebted to John and he will be greatly missed.

**PROFESSOR WILLIAMSON TO STEER SURREY**

Surrey welcomed accomplished academic Professor Stephen Williamson who joined as the new Deputy Vice-Chancellor for research. Professor Williamson, previously head of the School of Electrical and Electronic Engineering at Manchester University, one of the biggest departments of its kind in the UK, has also been a lecturer at Aberdeen University, a senior lecturer at Imperial College and a professor at Cambridge University. Professor Williamson’s new role will be to help guide Surrey in strengthening its already world-class research and to ensure that it remains attuned to the diverse needs of today’s society.

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People

Awards and achievements

LEADING FROM THE FRONT
Professor Christopher Snowden became the first Briton to win the Distinguished Educator Award from the microwave community of the Institute of Electrical and Electronics Engineers at a ceremony held in Boston. Vice-Chancellor Professor Snowden is an active researcher and was submitted in Surrey’s 2008 RAE submission, has published eight books, more than 300 papers and mentored 50 successful PhD students. He was also appointed to the governing board of the prestigious, government-funded, Technology Strategy Board (TSB). Professor Snowden’s three year term on the board saw him join 13 other members drawn from business, the public sector and research communities in helping drive technological innovation in the UK.

He said of his appointment: “I am delighted to be joining a body that brings together experience and expertise from many disciplines to bring innovation to the UK economy. This is recognition of the sterling work taking place at the University of Surrey in research, business engagement and knowledge transfer, all of which are vital to both the TSB’s work and the ongoing success of British business.”

THE FARADAY MEDAL
Congratulations to Professor of Machine Intelligence Josef Kittler, who has been awarded the Faraday Medal by the Institution of Engineering and Technology (IET) for his work on pattern recognition, image processing and computing. IET President Chris Earroshav praised Josef, a recognised world authority on signal processing, as an ‘outstanding member of the engineering community’.

RUSSIAN PEACE AWARD
Professor David Airey has been recognised for his professional dedication with a Peace and Development Award from the Russian International Academy of Tourism. The award is especially timely given that the University currently chairs the UN World Tourism Council.

GREEN ENTREPRENEUR HONOURED
The entrepreneurial nous of Professor Adel Sharif has secured him the first pan-European award for academic enterprise in the service of health and the environment. Professor Sharif was given the award by the Royal Academy of Engineering in Sweden for developing water purification and desalination technologies, which he now markets through Surrey Aquatechnologies, a University-affiliated company which he set up for that purpose.

PHYSICS PRESENTER ROYALLY HONOURED
Professor, author and TV presenter Professor Jim Al-Khalili was made an OBE in the Queen’s Birthday Honours List for services to physics, which he has worked hard to promote and popularise through shows such as the recent BBC documentary ‘Atom’. Jim continues to teach and research theoretical nuclear physics at the University.

SURREY’S GOLDEN GIRL
Vicki Hansford, a sports development officer, was awarded an honorary degree for her contribution to sporting excellence in rowing.

A bronze medallist at the Beijing Paralympics, Vicki clinched gold in the mixed adaptive coxed four at the World Cup rowing event in Munich this year.

HONORARY DEGREES
The University of Surrey’s decision to award Jonny Wilkinson an honorary degree for services to sport left the rugby hero delighted. Jonny, who took England to victory at the memorable 2003 Rugby World Cup, said he felt ‘privileged and honoured’ to be made Doctor of the University.

The internationally renowned veterinary surgeon Noel Fitzpatrick has been given an honorary degree by the University for pioneering the ‘one medicine’ concept to advance treatments for humans and animals in tandem. Noel, whose prosthetic limb implants for animals will now also be used on humans to help amputees, said he was ‘honoured’ to be made Doctor of the University and looked forward to ‘exploring a long and well-founded relationship’ with Surrey.

VIRTUOSO PIANIST WINS CULTURE AWARD
Piano tutor and Associate Lecturer Emilie Crapoulet has been given an award after going on a four-week concert tour of Nicaragua. Emilie, who gave six virtuoso performances in cities across the central American country, received the ExpresArte Award for her contribution to Nicaraguan culture at her final concert in the Palacio Nacional in Managua. She has been invited back to Nicaragua next year to give more performances and lectures.

COLONEL’S EFFORTS SALUTED
Surrey would like to congratulate Visiting Reader and Health Care Management Masters graduate Colonel John Burgess, who was unanimously awarded the Royal Army Medical Corps Consultants’ Prize for his dissertation on the prevalence of cold injury among Commonwealth soldiers.
Student Care

Student Care Services considered 735 applications for hardship funds during the year, an account that helps students with financial difficulties to continue their studies at Surrey. A total 296 grants were awarded, 49 of which were covered by the Annual Fund.

Faculties and departments

A donation of £5,000 to fund research into an Outdoor Education and Learning Centre that encourages core competencies and life skills; the development of the School of Engineering’s Chemical Engineering Resource Centre; and the opportunity for Engineering students to be part of Formula Student, a European competition to design, build and market a racing car.

Services

A multi-purpose minibus for the Students’ Union, with facilities for wheelchair users; building and equipping an information point in the International Office and Careers Centre; and online aptitude-testing equipment for the Careers Centre.

The Library

Developing a Learning Café provision; IT resources and an interactive whiteboard for the new student study centre; a DVD library resource and the equipment for an iPod induction tour of the Library.

Sports

State-of-the-art sports wheelchairs for the sports centre; top-quality sports kits for all student sports teams; and second-hand rowing boats for the University of Surrey Boat Club, increasing the number and range of activities the club can offer.

Who benefits from the fund?

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“I think the Annual Fund is a fantastic project,” says Politics student Mishal Dattani. “The support it provides has had an impact on many areas of University life, and I’ve seen the benefits first-hand when I was the recipient of hardship funds from Student Care.”

Students run an annual telethon as part of the fundraising effort. This year’s was the most successful ever: £142,714 in pledges and £103,401 in secured donations. The University also participates in the government’s £200m Matched Funding Scheme, which means an extra £1 is received for every £2 donated.

Alumni and development

The Alumni Relations Office works closely with former students and other partners to deliver highly valued services and to provide future generations of students with much-needed funds and resources. We round up their achievements and future plans.

Where the past meets the future

Surrey has always been proud of its graduates, and they remain a big part of the extended University community. The Annual Fund is one way in which alumni friends and staff are involved in the University today. The fund supports student welfare, resources to improve the student experience and enhance teaching and learning, library and sports facilities, and an improved campus environment.

Set up in 2003, it now has over 2,000 benefactors from 62 countries. So far, £540,000 has been pledged, with £360,000 in confirmed donations.

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Sustainability

All our efforts at Surrey are focussed upon generating the brightest possible future; for our students, through our research and through our enterprise activities. Underpinning it all however, is our commitment to ensuring that what we develop is sustainable.

Ahead of the game at Surrey Sports Park

Maximising sustainability has been a major consideration in the design of the new Surrey Sports Park. Energy efficiency was just one of the factors explored in detailed planning, which also took into account the environmental conditions for users, future maintenance and the building’s assimilation into the local environment.

The site has been designed and constructed to reach a ‘very good’ standard in the Building Research Establishment’s Environmental Assessment Method (BREEAM). Energy efficiency and carbon reduction measures include efficient gas-fired condensing boilers, combined with a biomass boiler for baseload heating which is carbon neutral – the wood fuel is sourced sustainably from local woodland management – sub-metering of all primary electrical, gas and water systems, intelligent automatic building control systems, efficient lighting and maximising of daylight contributions. Plans also took into account specific requirements for sports buildings, like the need for high ventilation rates to maintain air quality standards and the use of distinctive ‘wind-catchers’ on the roof to provide natural ventilation to the sports halls.

Sinking the buildings into the landscape and adding a shaped roof as part of the design will allow for a degree of sheltering from the elements and also improves the way the construction fits in with the surrounding environment. New planting will enhance the biodiversity on site – and absorb carbon dioxide – while drainage techniques will limit runoff and utilise grey water re-cycling from the pool filters for the Park’s toilets.

In terms of the user experience, the Sports Park is designed to have a high level of accessibility by travel modes other than private cars. A bus service will stop outside the main building and there will be good facilities for cycling and walking.

To read more about the park, visit www.surreysportspark.com

Powering our lives

Surrey Energy Economics Centre’s Professor Lester Hunt was a leading contributor to a major report on sustainable energy published by the government think-tank Foresight in 2008.


Taking two years to compile, it was the work of more than 150 experts from areas as diverse as economics, energy technologies, planning, construction and social sciences. The report suggests that the UK has become habitually dependent on forms of energy like coal and gas as these sources have historically dominated over others. It highlights resistance from the public and regulatory bodies to the infrastructure changes required to use alternative energy sources. It also points to the importance of human behaviour in curbing excessive energy use, stating that the public has yet to respond at the pace needed to meet the government’s target of an 80 per cent emissions cut by 2050. Contributors suggest that the benefits of greener energy must be made clearer, with more incentives offered to increase uptake. A gradual introduction of behavioural and regulatory changes might help – for example, annual energy efficiency tests on buildings. Decentralised energy should also be promoted more.

This is a process whereby power is generated from a source close to the place of use – like solar paneling on houses and combined heating and gas/electricity systems in blocks of flats.

Overhaul for CHP

Surrey’s ten-year-old combined heat and power (CHP) plant, which has reduced the University’s total CO2 emissions by an average of 1,450 tonnes a year, was removed for engine and generator refurbishment in October.

The plant is a 70 litre, 16 cylinder gas spark ignition engine that produces 1MW electrical output and 1.1MW thermal output to the district heating system. It cost £137,000 in 1999, paid in part by a £100,000 government grant. Since then, the University has saved around £135,000 a year on energy bills (£185,000 at today’s costs).

The CHP system was returned at the end of November for another ten years of operation.

Light fantastic

Replacing luminaires and lamps around campus is helping the University to save energy, reduce emissions and cut its electricity bills.

In Austin Pearce lecture theatres, 159 PAR halogen fittings were replaced with LED downlights, with estimated savings of 70 per cent in energy and £9,000 on annual bills. The high output of LEDs also removes the need for fluorescent light, reducing electrical demand by a further 6.5 kW – so increasing actual savings to 90 per cent.

In the Hillside Atrium, 18 halogen spotlights were replaced by LED spotlights that use 93 per cent less energy.

Translating talk into action

In September, before the Powering Our Lives report was published, the University held a conference called ‘Translating Talk Into Action: Sustainable Practice in Universities.’ It brought together experts from around the world to discuss practical measures to reduce the carbon footprint of the higher education sector, which is accountable for 5.2 billion kWh of energy per year, 3.3 Mt of CO2 and energy costs of £2 billion in the UK alone.

The conference attracted delegates from UNESCO, Forum for the Future, People and Planet, the Carbon Trust and the Sustainable Development Commission, as well as university academics from all over the world.

Key proposals included: favouring strategies over policies, setting concrete targets and giving people responsibilities; setting students sustainability-related projects as part of their coursework to tap into their talent for innovation; more concerted efforts to involve students and staff in green initiatives and encourage inter-departmental cooperation; and ensuring report findings on sustainability and global warming are always presented in a format that is easy to understand.

The conference was organised by Yacob Mulugetta, deputy director of the Centre for Environmental Strategy, and sustainability and environmental manager John Davis.

In the Hillside Atrium, 18 halogen spotlights were replaced by LED spotlights that use 93 per cent less energy.
**Financial results**

**Introduction**

The summarised financial statements comprise the results of the University, its Foundation Fund and subsidiary companies. The 2008–09 results include, for the first time, the results of the Guildford School of Acting (GSA). They also include, as discontinued operations, the results of Surrey Satellite Technology Limited (SSTL) for the five months prior to sale.

**Income and Expenditure**

**Overall**

The University achieved a consolidated surplus, before exceptional items, for 2008–09 of £0.2m. Although £3.1m lower than the previous financial year, this was due almost entirely to the sale of SSTL part way through the year, with the surplus before taxation on continuing operations being just £0.1m lower on the year at £0.6m.

The sale of SSTL gave rise to an exceptional profit in the 2008–09 consolidated accounts of £31.3m. There was a further exceptional profit of £2.6m due to the write back of negative goodwill arising on the acquisition of GSA, giving a retained profit for the year, after exceptional items, of £34.1m.

The sale of SSTL in mid-year meant that total income fell by £10.3m to £191.2m. However, income from continuing operations rose by £13.1m (+7.9%) to £178.2m, which included £2.9m attributable to GSA.

Expenditure on continuing operations rose by £13.2m (+8.0%) to £177.6m.

**Core University activities**

Income from core University activities grew by £10.9m (7.0%) to £165.4m with tuition fee income rising by £7.7m (15.2%) to £58.3m and research income rising by £3.0m (13.7%) to £25.3m. High utility costs proved challenging, but the University benefited from falling interest rates, and expenditure in other areas, especially staffing costs, remained tightly controlled.

There was a deficit on core University activities, before restructuring costs, of £1.0m. This compared with the previous deficits of £2.6m (2007–08) and £5.5m (2006–07) and showed the University making steady progress towards its target of breaking even on its core activities by 2011–12, after allowing for a base level of restructuring costs of c. £1.5m per annum.

2008–09 restructuring costs totalled £3.6m. This was £1.6m higher than last year, reflecting the cost of the academic restructuring which was necessitated by announcements of cuts in HEFCE funding allocations. The majority of posts were saved through the application of a voluntary severance scheme, and the cost of restructuring is expected to be recovered within a 12-month period.

**Foundation Fund**

The Surrey Research Park, which is the main asset of the University’s Foundation Fund, achieved another excellent financial result, with a surplus of £5.6m matching the previous year’s figure. This was a particularly encouraging result given the economic downturn. Income was slightly lower at £9.5m (2007–08: £10.2m), due mainly to some one-off transactions in 2007–08, but this was offset by savings in finance costs arising from lower interest rates.

**Balance Sheet**

Despite achieving a consolidated profit on the sale of SSTL of £31.3m, consolidated net assets only rose in 2008–09 by £2.5m to £167.7m. This was due to the fall in the value of the Research Park (the major element of endowment asset investments) and the rise in pension liabilities, both consequences of the continuing economic downturn.

**Capital Expenditure**

The University is investing significantly in its estate to support the needs of a growing student population. Capital expenditure in 2008–09 totalled £57.1m (consolidated), with the major schemes completed or progressed in the year being two new residential blocks on the Manor Park campus, the Surrey Sports Park, and the new GSA building on the Stag Hill campus.

**Summary**

The financial results for the year reflect not only the successful sale of SSTL, but also steady progress being made towards the University’s aim to achieve a break-even result on its core activities by 2011–12. This will enable income from the Foundation Fund and other enterprise activities to be used for strategic investment for growth.

Uncertainties surrounding the level of government funding mean that the University, along with the rest of the UK higher education sector, faces a particularly challenging period ahead. However, the diversity of the University’s activities, the strength of its endowment and its international outlook, mean that the University is well placed to overcome these challenges and emerge stronger in delivering its long-term objectives.
Financial results

Summary consolidated income and expenditure account

for the year ended 31 July 2009

<table>
<thead>
<tr>
<th></th>
<th>2008-09</th>
<th>2007-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total income</td>
<td>£m</td>
<td>£m</td>
</tr>
<tr>
<td>Continuing operations</td>
<td>178.2</td>
<td>165.1</td>
</tr>
<tr>
<td>Discontinued operations</td>
<td>13.0</td>
<td>36.4</td>
</tr>
<tr>
<td>Total</td>
<td>191.2</td>
<td>201.5</td>
</tr>
<tr>
<td>Total expenditure</td>
<td>£m</td>
<td>£m</td>
</tr>
<tr>
<td>(177.6)</td>
<td>(164.4)</td>
<td>(197.6)</td>
</tr>
<tr>
<td>Surplus/(deficit) before taxation</td>
<td>£m</td>
<td>£m</td>
</tr>
<tr>
<td>Taxation, minority interests and transfers from endowments</td>
<td>0.6</td>
<td>(0.6)</td>
</tr>
<tr>
<td>Surplus before exceptional items</td>
<td>0.0</td>
<td>0.7</td>
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<tr>
<td>Exceptional items</td>
<td>0.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Retained surplus for the year</td>
<td>3.2</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Independent auditors’ statement to the University of Surrey ('The University')

We have examined the summarised financial statements of the University of Surrey for the year ended 31 July 2009 which comprise the summarised consolidated income and expenditure account and the summary consolidated balance sheet, which are set out on pages 36 to 39 of the University's Annual Review ('Annual Review'). The summarised financial statements have been prepared by the University Council for the purpose of inclusion in the Annual Review, as explained in the note.

This statement is made, in accordance with our engagement letter dated 10 October 2008, solely to the University, in order to meet the requirements of paragraph 36 of the Statement of Recommended Practice: Accounting for Further and Higher Education (2007). Our work has been undertaken so that we might state to the University those matters we have agreed to state to it in such a statement and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the University for our work, for this statement, or for the opinions we have formed.

Respective responsibilities of the University Council and auditors

The Council has accepted responsibility for the preparation of the summarised financial statements in accordance with paragraphs 29 to 35 of the Statement of Recommended Practice: Accounting for Further and Higher Education (2007). Our responsibility is to report to the University our opinion on the consistency of the summarised financial statements on pages 36 to 39 within the Annual Review with the full financial statements. We also read the other information contained within the Annual Review and consider the implications for our report if we become aware of any apparent mis-statements or material inconsistencies with the summarised financial statements.

Basis of opinion

We conducted our work having regard to Bulletin 1999/6 'The auditor’s statement on the summary financial statements’ issued by the Auditing Practices Board. Our separate report on the University’s full financial statements for the year ended 31 July 2009 describes the basis of our statutory audit opinion on those financial statements.

Opinion

In our opinion, the summarised financial statements set out on pages 36 to 39 are consistent with the full financial statements for the year ended 31 July 2009.

Chris Wilson
For and on behalf of KPMG LLP, Statutory Auditor
Chartered Accountants
1 Forest Gate, Brighton Road
Crawley, West Sussex
RH11 9PT
30 November 2009

Summary consolidated balance sheet

as at 31 July 2009

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed assets</td>
<td>£m</td>
<td>£m</td>
</tr>
<tr>
<td>Endowment asset investments</td>
<td>48.8</td>
<td>67.0</td>
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<tr>
<td>Current assets</td>
<td>60.7</td>
<td>58.9</td>
</tr>
<tr>
<td>Creditors: amounts falling due within one year</td>
<td>(59.8)</td>
<td>(61.4)</td>
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<tr>
<td>Total assets less current liabilities</td>
<td>334.8</td>
<td>308.3</td>
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<tr>
<td>Creditors: amounts falling due after more than one year</td>
<td>(131.7)</td>
<td>(123.4)</td>
</tr>
<tr>
<td>Provisions for liabilities and charges</td>
<td>(1.7)</td>
<td>(1.6)</td>
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<tr>
<td>Pension liability</td>
<td>(33.7)</td>
<td>(18.1)</td>
</tr>
<tr>
<td>Total net assets</td>
<td>£m</td>
<td>£m</td>
</tr>
<tr>
<td></td>
<td>167.7</td>
<td>165.2</td>
</tr>
<tr>
<td>Deferred capital grants</td>
<td>53.9</td>
<td>50.7</td>
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<tr>
<td>Endowments</td>
<td>48.8</td>
<td>67.0</td>
</tr>
<tr>
<td>Reserves</td>
<td>65.0</td>
<td>46.1</td>
</tr>
<tr>
<td>Minority interests</td>
<td>0.0</td>
<td>1.4</td>
</tr>
<tr>
<td>Total funds</td>
<td>£m</td>
<td>£m</td>
</tr>
<tr>
<td></td>
<td>167.7</td>
<td>165.2</td>
</tr>
</tbody>
</table>

Note

The summarised financial statements for the year ended 31 July 2009, which comprise the summary consolidated income and expenditure account and the summary consolidated balance sheet, have been prepared by the Council of the University of Surrey for the purpose of inclusion in this Annual Review. The summarised financial statements are an extract of the full financial statements on which the auditors issued an unqualified opinion.

The full financial statements were approved by the University Council on 26 November 2009.

The full audited financial statements and independent external auditors’ report can be obtained from the Director of Finance, University of Surrey, Guildford, Surrey, GU2 7XH.

Professor CM Snowden FRS FREng FIET FIEEE FCGI
Vice-Chancellor and Chief Executive
Max Taylor
Chairman of Council

Crawley, West Sussex